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# NUTRITION COMMITTEE NEWS

For exchange of information on nutrition education and school lunch activities.

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## TENTH ANNIVERSARY OF THE NATIONAL NUTRITION CONFERENCE

This report of progress in nutrition is a continuation of the review in the May 1951 issue.

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### ENRICHMENT AND FORTIFICATION OF FOOD

A 1939 resolution of the Council on Food and Nutrition of the American Medical Association (AMA) has had an important influence on enrichment and fortification programs over the years. Greatly simplified, it (1) encouraged the addition of vitamins, minerals, and other dietary essentials to general purpose foods in amounts to restore them to high natural levels when in the interest of the health of the public and (2) opposed the indiscriminate fortification of general purpose foods. The addition of vitamin D to milk, vitamin A to margarine, iodine to table salt, and calcium, iron, thiamine, and riboflavin (later niacin also) to cereal products were then and still are considered in the interest of public health.

**Bread and Flour.**—1940 was a year of fast-moving events that led up to the present flour and bread enrichment program. The National Research Council (NRC) recommended fortification with thiamine of all white flour for use by the Armed Forces. The Food and Drug Administration scheduled public hearings to consider a proposal for a standard of identity for wheat flour and related products. Millers, bakers, and leaders in allied industries met with physicians, scientists, and Federal representatives in Chicago and through discussion, industry, science, and government came into agreement on enriching white flour for the entire population with certain vitamins and minerals. The NRC Food and Nutrition Committee (later Food and Nutrition Board) developed suggested levels of enrichment for white flour and bakers' bread.

The bread and flour enrichment program was inaugurated in May 1941 when the National Nutrition Conference for Defense endorsed the recommendations of the NRC Food and Nutrition Committee. Following the issuance of the Federal standard of identity for flour, including enriched flour, and the National Nutrition Conference in May 1941, enriched flour and bread began to appear on the market and the volume kept

increasing. By the middle of 1942, 75 to 80 percent of the white bread and family flour sold were enriched voluntarily.

Enrichment legislation was enacted first in South Carolina in March 1942, and in Louisiana four months later. Alabama, Texas, Mississippi, and Kentucky passed enrichment laws in 1943 and 1944.

During the war years 1943–1946, enrichment of all white bread and rolls for sale was mandatory under War Food Order No. 1. By 1946 when the Order was revoked along with some other war food control measures, 19 States had made enrichment compulsory. Now bread and flour enrichment is required by law in 26 States, Hawaii, and Puerto Rico, and in other States it is widely practiced on a voluntary basis.

State Nutrition Committees have helped to get most of the bills passed, often taking leadership in enlisting support of professional, scientific, educational, industrial (especially grain, wheat, and baking associations), consumer, legislative, and other groups.

Legislative efforts of State Nutrition Committees have been accompanied by intensive educational programs. Giving people in the State an understanding of the purpose of bread and flour enrichment and keeping them informed on enrichment developments contributed to a favorable reception of the law when it was put into effect. The educational programs of Nutrition Committees in States having enrichment legislation are now focused on supporting the maintenance and enforcement of enrichment legislation.

Educational and legislative programs have been assisted by publications on flour and bread enrichment issued by the Food and Nutrition Board (NRC). The first one in 1944 gave facts about enrichment and suggested a uniform State bill for flour and bread enrichment. The legislative program of Council of State Governments has included flour and bread enrichment since 1944–45. A history was published later by NRC and has been followed by supplements bringing his-

torical facts up to date and indicating the problems still involved.

It is currently estimated that about two-thirds of all the white flour milled reaches the consumer enriched, either as flour or as bread or other bakery products. This practice has contributed to the dietary improvement that has occurred in the last decade. Benefits are of course proportional to the amount of flour and bread in the diet. Diets of low-income city families studied in 1948 contained 14 percent more iron, 20 percent more thiamine and 15 percent more niacin they they would have without enrichment. At a relatively high income level comparable figures were somewhat lower; 10, 13, and 9 percent. The contribution of riboflavin was of lesser importance because of the fairly generous amounts of milk used.

Concern that the use of enrichment ingredients would decrease the use of milk in bread has been lessened by findings from a survey of baking practices. This study, made by the University of Wisconsin and the U. S. Department of Agriculture, showed that milk solids in bakers' bread were at about the same level in 1939 before enrichment and in 1947 and 1948 after several years of enrichment. Proposed Federal bread standards issued in 1950 by the Food and Drug Administration continue to permit enrichment levels to be attained by use of milk in conjunction with other enriching ingredients.

**Corn Meal and Grits.**—Because corn meal and grits are important in diets, especially in the South, corn enrichment legislation, recommended by NRC and AMA, was promoted by State nutrition committees. Voluntary enrichment is said to be practiced to such an extent that nearly all degermed corn meal and grits sold in the Southeastern area are enriched. Laws for the enrichment of *degermed* corn meal and grits in Alabama, Georgia, Mississippi, North Carolina, and South Carolina were enacted between 1943 and 1945.

In South Carolina, Alabama, and other States, the voluntary enrichment of *whole* corn meal has been facilitated by the invention of an enrichment feeder machine for use in small mills. The South Carolina Nutrition Committee helped to secure passage in 1949 of legislation to enrich all corn meal and grits, including those from whole corn.

**Other Foods.**—Improvement of the nutritional quality of *rice* both by the "conversion" process and by enrichment with vitamins and minerals has been supported by the National Research Council especially for States where rice consumption is high. Processors like

the conversion process because it reduces rice breakage and yields more salable rice. The introduction of enriched rice in Bataan in 1948 has been followed by a decline in reported deaths from beri-beri from 167 in 1947–48 to 18 in the year 1949–50.

Fortifying of *margarine* with vitamin A is now almost universal. Such fortification is required by law in Alabama, Louisiana, Mississippi, South Carolina, Tennessee, and Texas, and practiced voluntarily in other States.

One of the first foods to be treated on a large scale for nutritional improvement was *table salt*. Since the middle 1920's table salt, to which small amounts of iodine have been added, has been on the market. In areas of the United States where goiter is endemic, the use of iodized salt has proved very effective in preventing simple goiter.

Though iodized salt is on grocers' shelves many consumers are not aware of its value. In Michigan, one of the States where endemic goiter was greatly reduced following the use of iodized salt, the Nutrition Council is again publicizing its importance. Iodization of all table salt has been advocated by such organizations as the American Public Health Association, AMA, and NRC.

## HOME FOOD PRODUCTION AND CONSERVATION

To help people get a good diet during rationing and to provide a better diet at lower cost, the Food Fights for Freedom Program from 1942 to 1945 stressed gardens . . . food preservation and conservation . . . use of plentiful foods . . . good nutrition. "Produce, Conserve, Share, and Play Square with Food" was publicized in newspapers, radio broadcasts and in other ways as needed citizen action. Finding that people ate more vegetables and fruits after acquiring a taste for those they grew, committees continued to urge home production of these foods after the war.

A National Conference on Home Food preservation in 1944, to spread the use of safe procedures for food preservation, brought together technicians and teachers, and stimulated food preservation workshops in various States during the decade. The Minnesota, Nevada, North Dakota, Texas, Utah, and Washington Nutrition Committees sponsored uniform canning directions for use of all workers in their respective States. To demonstrate up-to-date methods of preparing foods for frozen food lockers, the New Mexico State Nutrition Committee held a food preservation school. Nutrition Committees in the last few years have sponsored the canning of plentiful foods for use of local school lunchrooms and institutions.

## SCHOOL LUNCH PROGRAMS

School lunches in this country before the 1930's were largely associated with free meals for needy children, free or low-cost meals for undernourished children, a hot dish to supplement cold lunches brought from home by children in small rural schools, or lunches bought by children, mostly in high school, living too far from school to go home for the noon meal. Through voluntary contributions by teachers and welfare agencies, and through State and municipal legislation, funds were made available for the free and low-cost meals. Federal aid started on an emergency basis with loans for the payment of labor to prepare and serve school lunches in 1932. Federal contributions of food were added in 1935. Cash reimbursements to participating schools based on number of meals served were started in 1943.

To nutritionists and others aware of the importance of starting good food habits early, the *National School Lunch Act* of 1946 which placed the school lunch program on a permanent basis was an important milestone. The number of schools and of children participating have increased year by year. In November 1950 the program was in operation in all 48 States and 4 territories and over 8½ million boys and girls were served lunches at school. An estimated 1,437 million school lunches will be served in 1950–51. About two-thirds of these will be type A, planned to provide one-third or more of the average child's nutritive requirements for one day.

From September through December 1950, schools received 175.5 million pounds of USDA-donated food. Of this 51.3 million pounds were dry skim milk, concentrated citrus fruit juice, and other foods rich in nutrients frequently short in children's diets.

Nutrition committees have supported school lunch legislation and appropriations, and upon request have contributed professional advice on: Planning and operating school lunch rooms . . . making up menus . . . training lunchroom workers . . . using school lunches as a way of teaching nutrition . . . demonstrating to the community the value of school lunches in order to gain support for the program.

To help determine needs for school lunch and other nutrition programs, *clinics* to assess nutritional status were conducted from 1942–1945 in cooperation with State Health Departments by a consultant detailed by the U. S. Public Health Service to the Nutrition Programs Branch of the War Food Administration. Clinics, chiefly for school children, were held in 17 States and the District of Columbia. The findings helped to give ideas of local nutrition problems and often stimulated public health appraisal programs. State nutrition com-

mittees gave support to nutrition clinics. Vermont, Nevada, Illinois, Washington, and New Mexico were among the States that brought the findings to the attention of parents and school officials to show the need for school lunch programs.

In recent years some nutrition committees have made surveys of the food habits of children to acquire facts on the need for school lunches. Findings from the South Dakota Nutrition Committee's survey were instrumental in getting the approval of funds to reestablish a school lunch program in 1946. In Maine the results of a 1948 study on nutritional status were discussed with elementary teachers at a meeting of the Nutrition Committee.

At the request of parents, the Food and Nutrition Division of the Health Council of Greater New York made a *survey* of the *school lunch situation* in five boroughs to evaluate the facilities, operation, supervision, and interest and participation of school personnel in the program. Another survey, made in Cook County, Ill., by the Chicago Nutrition Association, determined how many schools had lunch projects, what services they would like from the Association, and how many other schools were interested in starting lunch projects.

Daily *type A menus* containing plentiful and USDA-donated foods have been prepared by the Minnesota Nutrition Council for participating schools. In an effort to have home and school meals supplement each other to provide an adequate diet for the children, copies of menus have been sent to parents.

A minimum *list of equipment* needed for lunchrooms in small rural schools was prepared by the Arizona Nutrition Committee. Committees have also prepared manuals and other helpful materials for school lunch workers and arranged exhibits and demonstrations.

To improve the *competence of school lunch staffs*, Committees in most States have arranged conferences, workshops, or institutes for school lunch workers. Also they have urged the employment of well-qualified school lunch supervisors and other personnel. The Indiana Nutrition Council helped to establish a position of nutritionist in the School Lunch Division of the State Department of Education.

## NUTRITION EDUCATION

**Training for Professional Workers.**—To bring nutritionists and workers in related fields up to date in the rapidly advancing knowledge of nutrition, Committees have used a variety of group techniques. In 1940–41 refresher courses were offered by nutrition committees for *home-economics trained homemakers* and others not recently employed in nutrition work. Thus the number

of volunteers qualified to teach nutrition or carry other responsibilities in the nutrition program was greatly increased.

Institutes to keep *professional workers in nutrition and allied fields* informed on new developments in nutrition have been a regular activity of many nutrition committees. The New York State Nutrition Committee held its first institute in 1939; the 13th will be held this summer.

The spread and exchange of technical information have been expedited by inviting authorities to speak at conferences and meetings, holding joint meetings with other professional groups, and by attending meetings of medical, dental, and other societies.

Workshops for *school teachers* have provided information on nutrition and developed teaching methods and materials. The 1944 Terre Haute workshop for staff members of teacher-education institutions, sponsored by the U. S. Office of Education in cooperation with the War Food Administration and Indiana State Teachers College, emphasized the need for preservice nutrition training of elementary teachers.

Nutrition committees have stimulated and even offered nutrition courses and institutes for teachers . . . prepared and supplied teaching aids . . . encouraged the integration of nutrition education with school curriculums. A survey of nutrition education in schools, colleges, and universities over the country by the Connecticut Committee indicated that the pattern of instruction is about the same in most States.

**Fitting Educational Programs to Needs.**—Many nutrition committees have planned educational programs around the results of local surveys. A 1948 survey of *food habits of children* in Floyd and Harrison Counties in Indiana, made by the State Nutrition Committee, led Harrison County to promote increased milk production and Floyd County to promote better breakfasts.

Because *dietary surveys* had shown that good food sources of vitamin C and riboflavin were short in children's meals, the North Carolina Nutrition Committee in 1947-48 urged the growing of home gardens and sent information about vitamin C and riboflavin to school lunch managers.

A survey of *homemakers' information* on nutrition in Richmond, Va., made in 1947 by the USDA in cooperation with the Richmond and Virginia Nutrition

Committees, has given direction to nutrition teaching in the State.

According to the need in the State at the time, nutrition committees have emphasized better breakfasts or lunches . . . food conservation and preservation . . . information to combat food fads . . . use of alternates for foods in short supply . . . enrichment . . . school lunches . . . safe milk . . . use of abundant low-cost foods or foods such as nonfat dry milk which provide needed nutrients cheaply. The New York State Nutrition Committee is carrying on an educational program to acquaint the public with a bread containing higher-than-usual amounts of nonfat dry milk, wheat germ, and soy flour.

**Methods and Materials.**—To spread nutrition information and reach as many persons as possible, nutrition committees have used many approaches: Nutrition weeks or months . . . food demonstrations . . . exhibits . . . classes for homemakers . . . articles for newspapers and periodicals . . . radio broadcasts . . . talks at meetings . . . films . . . library shelves of nutrition publications . . . news letters. The value of these efforts has often been enhanced by cooperation with civic and other groups.

To meet the need for a simple guide to food selection and meal planning, several charts and leaflets were developed by State Committees. Among the first were—The *Texas Food Standard*, prepared by the Texas Nutrition Council in 1940, and issued purse-size in English and Spanish . . . *Daily Food Guide* by the Utah Nutrition Council . . . A wall chart, *Yardstick for Good Nutrition*, printed in English and five other languages by the New Hampshire Committee.

In 1942 a slogan, a symbol, and a set of food rules showing people how to meet the NRC'S Recommended Dietary Allowances were developed by the Office of Defense Health and Welfare Services in cooperation with industry and an Interdepartmental Coordinating Committee. Revised and combined into the *Basic 7* chart in 1943, the slogan, symbol, and food rules became one of the cornerstones of the whole wartime nutrition program. This chart, illustrated with local foods, was republished by the Hawaii, Maine, and other Nutrition Committees. Food industries and other organizations reproduced the symbol and slogan in advertising and popular nutrition materials. Other publications, movies, and exhibits of State, Federal, and private agencies gave more detailed information on various aspects of the nutrition program.